

# Energy Analyzers and Meters



NDM70 - NDM70 Lora DIN Rail Type Three-Phase Electricity Meter

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## DIN Rail and Panel Type Energy Meters

Energy meters are devices that provide perfect readability with a white backlit LCD display, and are used for single-phase and three-phase energy measurements in residential and utility applications.

These devices measure and display various important electrical parameters, and also offer a communication port for remote reading and monitoring.

The bidirectional energy measurement feature makes them an ideal option for solar energy measurements as well.

Additionally, models with LoRa communication capability are available, as well as prepaid or generator tariff options.

### Application Areas

- Shopping Malls
- Marinas
- Residences
- Airports
- Factories
- Holiday Resorts
- Prisons
- EV Charging Stations

### Advantages

- Class 0.5 and Class 1 applications

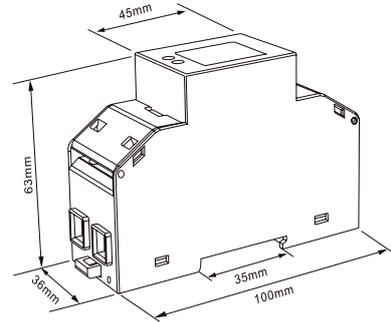
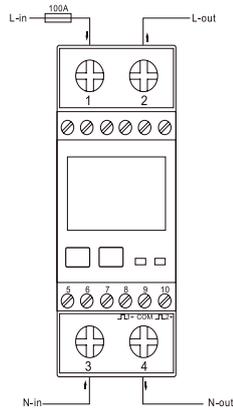
- Competitive pricing
- Compatibility with all software via Modbus RTU protocol
- Measurement capacity up to 100 Amps
- Bidirectional measurement capability
- Smaller footprint compared to competitors
- High measurement accuracy classes
- Wide measurement range
- Billing of high-cost liquid fuels with generator tariff option
- Advantage of collecting payments from prepaid subscribers
- DIN rail mounting (35mm)
- Wide range of solutions: direct connection and current transformer models
- RS485 (Modbus) or wireless data transmission (LoRaWAN communication)
- Savings on cabling and labor costs
- Fewer failure points due to wireless feature
- Convertible to modular or panel type solutions (only with additional equipment for NDM70 series)
- Advantage of collecting payments from subscribers and prepaid collection
- Compatibility with direct connection and CT models with a wide range of solutions
- White backlit LCD display
- Scroll settings display feature
- Support for AMR (Automatic Meter Reading) and SCADA systems
- Multifunctional measurement
- Easy payment collection (prepaid type)



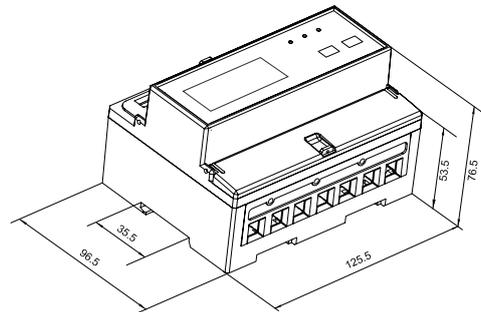
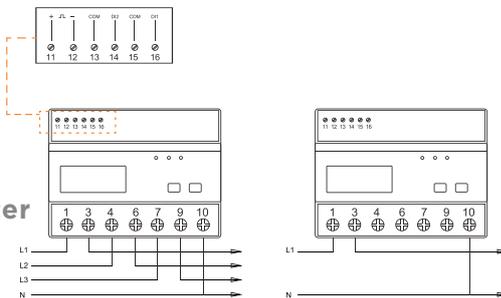
# Energy Analyzers and Meters

## Wiring Diagram - Dimensions for DIN Rail and Panel Type Energy Meters

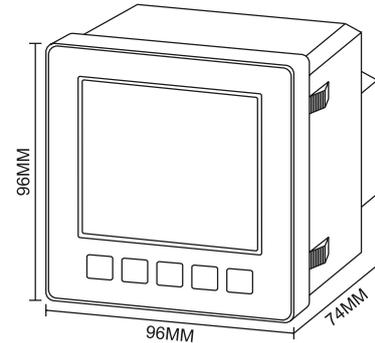
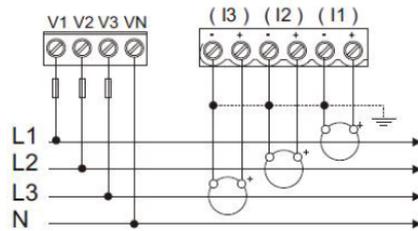
**NDM30 - NDM30 Lora**  
DIN Rail Type Single-Phase Electricity Meter



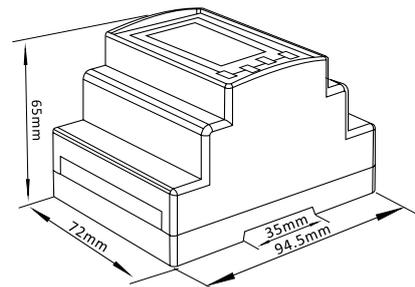
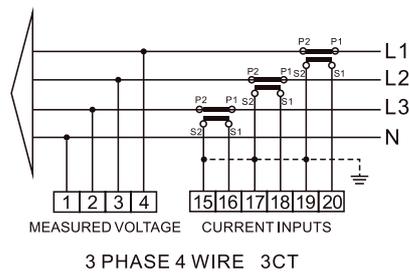
**NDM50**  
**NDM50 Lora**  
DIN Rail Type Three-Phase Electricity Meter



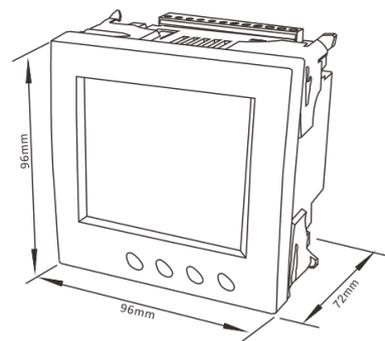
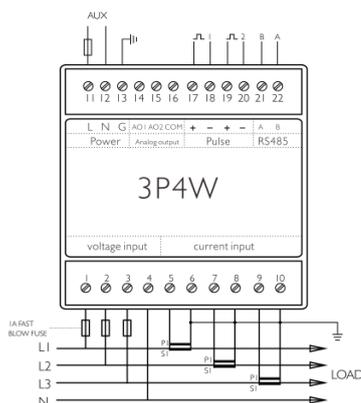
**NPM270BX**  
**NPM270BX-ETH**  
Series Panel Type Energy Analyzers



**NDM70**  
**NDM70 Lora**  
DIN Rail Type Three-Phase Electricity Meter



**NPM290-5G**  
**NPM290-5J Series**  
Panel Type Energy Analyzers



# Energy Analyzers and Meters

## NDM70 - NDM70 Lora DIN Rail Type Three-Phase Electricity Meter

	MODEL	
	NDM70	NDM70 Lora
Standards		
IEC62053-21	✓	✓
IEC 62053-23	-	✓
EN50470-1/3	✓	✓
EN61326-1:2013	✓	✓
EN61326-2-3:2013	✓	✓
EN 61010_1:2010+A1:2019	✓	✓
EN 61010-2-30-2010	✓	✓
Features		
Nominal Voltage	3x230/400 VAC	173 to 480 V AC L-L / 100 to 276 V AC L-N
Operating Voltage	80%-120%	85-275V AC / 120-380V DC
AC Voltage Withstand	4KV for 1 minute	-
Impact Voltage Withstand	6KV-1.2μS	-
Base Current	1A/5A CT or 40mA/100mV/333mV CT input	1A/5A
Operational Current Range	0.4% Ib-I <sub>max</sub>	-
Overcurrent Withstand	20 I <sub>max</sub> for 0.5s	-
Operational Frequency Range	50 or 60Hz	45-65Hz
Internal Power Consumption	< 2W/10VA	<7VA/3.5W
Display	LCD	LCD
Maximum Reading	9999999.9 kWh/kVarh	9999999.9 kWh/ kVarh
Accuracy		
Voltage	0.5%	0.5%
Current	0.5%	0.5%
Frequency	0.2%	0.2%
Power Factor	1.0%	1.0%
Active Power	1.0%	1.0%
Reactive Power	1.0%	-
Apparent Power	1.0%	-
Active Energy	1.0%	1.0%
Reactive Energy	2.0%	2.0%
Performance Criteria		
Operating Humidity	<90% (non-condensing)	<95% (non-condensing)
Storage Humidity	<95% (non-condensing)	-
Operating temperature	-25°C to +55°C	-25°C to +55°C
Storage temperature	-40°C to +70°C	-40°C to +70°C
Reference temperature	23°C± 2°C	-
Installation category	CAT III	CAT III
Mechanical environment	M1	M1
Electromagnetic environment	E2	-
Protection against dust and water ingress	IP51	IP51
Protection Class	Class II	Class II
Communication		
Interface Standard and Protocol	RS485 Modbus RTU	LoRaWAN Specification 1.0.2 EU868/AS923/AU915/US902/CN470/
Frequency	-	CN433
LoRaWAN Classes	-	Class C
Automatic Loading	-	Max. 19 parameters
Automatic Loading Interval	-	Configurable
Activation Path	-	OTAA or ABP
Output Power	-	13dBm in transmit
Coding Format	-	ASCII
Communication Distance	Max 1200m	1500m in open area



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